Gains from Rehabilitation Nursing Care for the Self-Care of Elderly Inpatients – Scoping Review

Helena Sofia Mira Cachola[1(✉)], Maria Miguel Godinho Ventura[2], Maria José Bule[3], Luís Sousa[4,5], and Geyslane de Albuquerque[6]

[1] Alentejo Central Local Health Unit, Évora, Portugal
helenacachola_10@hotmail.com
[2] Arronches Continuing Care Unit, Arronches, Portugal
[3] Department of Nursing, University of Évora, Évora, Portugal
[4] School of Health Atlântica [ESSATLA], Nursing Department, Atlantic University, Oeiras, Portugal
[5] Comprehensive Health Research Center [CHRC], University of Évora, Évora, Portugal
[6] Nossa Senhora das Graças Faculty of Nursing, University of Pernambuco, Recife, Brazil

Abstract. Introduction: Hospitalization of elderly people is a period that has consequences at the functional level, due to inactivity, with a negative impact on functionality and quality of life. Rehabilitation nursing care is fundamental in optimising functionality, by valuing self-care during hospitalization. Objective: To identify the interventions carried out by specialist rehabilitation nurses that benefit the functionality of elderly patients during hospitalization. **Methodology**: The scoping review was conducted in the CINAHL and MEDLINE databases in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-analysis (PRISMA) guidelines, including all studies published between January 2019 and January 2023. The search strategy used controlled vocabulary terms (DeCS/MeSH), with inclusion criteria based on the PCC structure. To assess methodological quality, the JBI critical appraisal tools were used, covering different study designs. **Results**: Eight studies were included, with qualitative (n = 2), cohort (n = 5) and observational (n = 1) methodological designs. They included hospitalized participants who received specialised rehabilitation nursing care and had a positive effect on the results: optimising users' autonomy; confidence; and/or functional capacity. Strategies that maximise functional capacity are categorised as: Rehabilitation interventions (subcategories support-education and assist-train); benefits of rehabilitation care (subcategories functionality and disease management). **Conclusion**: Rehabilitation Nursing interventions based on assistance, education, and training promote the optimisation of functional capacity, reduce the negative impact of hospitalization, and improve the quality of life for the elderly. The care provided by the specialist rehabilitation nurse is essential during the hospitalization period of elderly patients due to its benefits for functionality and the promotion of self-care.

Keywords: Self-care · self-efficacy · self-management · hospitalization · inpatients · rehabilitation nursing; the elderly

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1 Introduction

Aging is defined as a process of change, progressive over the course of life, with biological, psychological, and social alterations. It is a process that involves a decrease in functional capacity, where chronic diseases emerge, and support becomes imperative for the performance of Activities of Daily Living (ADLs). It is an integral part of the life cycle, and it is desirable for this phase to be lived in a healthy and autonomous manner for as long as possible [1].

The number of elderly people, aged over 65, increased to 761 million by the year 2021, with an estimated rise of about 28% by 2050 [2].

The epidemiological transition that has occurred means that more people are living longer and with more diseases, thereby requiring health responses to multimorbidity that are centered on the individual rather than just on the acute causes that lead to hospitalization [3]. With this increase in average life expectancy, physiological and pathological changes emerge, along with degenerative processes that compromise the functionality of individuals, particularly the elderly, significantly affecting their ability to perform self-care.

It is worth mentioning that the aging process is heterogeneous and is strongly influenced by socioeconomic variables, sex, ethnicity, territory, among others. According to the World Health Organization, an elderly person is one who is 60 years of age or older. In developed countries (given that the average life expectancy in these countries is higher compared to that of developing countries), for legal purposes (as is the case in Portugal), the age of 65 has been officially adopted. With the aging population worldwide, it becomes essential for rehabilitation nurses to work in geriatric rehabilitation units, utilizing all their skills with the aim of helping these older adults acquire new competencies [4].

Self-care is defined as an activity carried out by oneself to maintain one's life and well-being, ensuring that individual basic needs are met [5].

The functional capacity of older adults can undergo changes due to the hospitalization process, as it is a complex and fragile event. When a patient is hospitalized, they not only face an acute illness or exacerbation of a chronic condition, but they are also away from their familiar social environment. Furthermore, it has been observed that hospital admission contributes to greater dependence and difficulty in performing self-care among elderly patients, whether due to exacerbation of their condition or increased inactivity during this period [6]. The loss of muscle mass (which is extremely important for performing daily activities) due to long periods of bed rest is one of the consequences that arise from extended periods of hospitalization [7] and, since muscle mass is pivotal for carrying out daily life activities, rehabilitation nurses develop their work with elderly individuals based on three pillars: health promotion, risk prevention, and the treatment and rehabilitation of those who suffer the effects of diseases and injuries that impact their functionality [8].

When patients are more dependent at the time of hospital admission, there is a higher likelihood of readmission, which consequently leads to longer hospital stays, thereby contributing to a loss of functionality [9].

For the specialized rehabilitation nurse, the focus is on promoting autonomy, independence in daily living activities, quality of life, and the adaptation of the patient and their family to the limitations inherent in the ageing process and/or hospitalization, while respecting everyone's needs and uniqueness [1].

Nurses have the mission of supporting the patient in recovering their abilities, becoming a resource for health and well-being, as they facilitate health promotion, act in risk prevention, complement treatment and healing care, support the achievement of their fullest potential after an impairment, and promote social reintegration [10].

The conceptual structure of rehabilitation nursing care, based on the theories of Dorothea Orem, guides person-centered intervention through the self-care theory, as well as addressing residual or potential resources through the self-care deficit theory [11]. The theory of nursing systems also presents the different levels of intervention through which rehabilitation nurses develop the dialectic between empowering (instructing, teaching) and enabling (training, adapting) towards independence, even if modified, for self-care [11, 12]. The nurse intervenes whenever there is a limitation to continued and effective self-care [13, 14]. The role of the specialized nurse, aligned with Dorothea Orem's theory, acts as a therapeutic agent, providing specialized and personalized care aimed at promoting autonomy in self-care. In this sense, it plays a fundamental role in empowering individuals with strategies that enable them to perform self-care.

The nurse specialized in rehabilitation nursing plays a crucial role in assessing possible changes in the functionality of elderly patients and acts to ensure that they receive individualized, appropriate care in the necessary amount to minimize the impact of hospitalization on their functional capacity.

The admission of elderly individuals, regardless of its cause, often brings several risks, notably a decline in functional capacity, with a reduction and loss of the ability to carry out daily living activities independently, which is associated with physical and psychosocial complications. Prolonged immobility can lead to muscle loss and decreased muscle strength, thereby limiting the physical capacity of the elderly. In other words, there is a clear relationship between the loss of functional capacity and hospitalization [15]. Also, according to Rodrigues et al. (2024), the hospitalization of elderly individuals affects essential functions for body movement control, such as decreased strength, loss of balance, and reduced endurance, consequences that are sometimes difficult to recover from [16].

In their daily activities, in the context of hospitalization, the specialist nurse in rehabilitation nursing assesses the functional dependence of patients and acts to enhance their autonomy and independence. From this perspective, the specialist in rehabilitation nursing can temporarily assist elderly patients in performing their self-care tasks, providing education about these tasks and training skills, with the aim of making them autonomous and independent [5]. The nurse specialist in rehabilitation nursing organizes and plans all care in a coordinated manner and in collaboration with the other professionals, to promote the recovery of patients and thus facilitate the transition from hospital to home [17].

Most patients requiring care from rehabilitation nurses exhibit functional dependence, and it is in the hospital that the care pathway begins, aiming for clinical stabilization, which is later continued in other healthcare units [8].

The present study aims to identify the interventions carried out by Rehabilitation Specialist Nurses that benefit functionality during the hospitalization period of elderly patients, based on the question: "What are the benefits of rehabilitation nursing care for hospitalized elderly patients?".

2 Metodology

A scoping review is a structured and explicit method that allows for the identification and mapping of the breadth of available evidence on a specific topic, field, issue, or concepts that have already been explored by other researchers and/or healthcare professionals, to assimilate findings from studies in the context of care in this area. It is a methodology that begins with a formulated question to gather and analyze data from the studies included in the review [18].

The study in question is a scoping review, and the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guideline was used [19] to make the research scientifically robust, with a visible and accessible analysis [20].

The research question was formulated according to the acronym PCC [21]: Population = Hospitalized patient; Concept = Rehabilitation nursing care for the elderly; Context = Intervention of the rehabilitation specialist nurse during hospitalization.

For the search of articles in the CINAHL and MEDLINE databases, the following search strategy was used: ((“self care”) OR (“self-efficacy”) OR (“self management”) (“hospitalization”) OR (“hospitalized”) OR (“hospitalized patients”) OR (“inpatient) (“outcomes”) OR (“benefits”) OR (“effects”) (“self care”) OR (“self-efficacy”) OR (“self management”)) AND ((“hospitalization”) OR (“hospitalized”) OR (“hospitalized patients”) OR (“inpatient)) AND ((“rehabilitation nursing”)) AND ((“outcomes”) OR (“benefits”) OR (“effects”) (“self care”)) AND ((“self-efficacy”) OR (“self management”)). The research for the selected articles was conducted within the time frame between 2019 and 2024, in English, peer-reviewed, and published in scientific journals. As inclusion criteria, all articles addressing rehabilitation care for patients aged 65 years or older who were hospitalized were selected. As exclusion criteria, opinion articles and grey literature were eliminated.

Initially, the articles were selected based on their titles by one researcher (JM), and duplicate articles were excluded. Subsequently, the abstracts were read by two independent researchers (HC and MV), and those that met the inclusion criteria were selected, with all doubts discussed with a third researcher (MB).

For data extraction, a summary table was created in a file with the following information: title/author/country/year, objectives/participants/duration/intervention, results/conclusions, and methodology/evidence level.

The next step consists of the qualitative analysis of the selected studies by two reviewers (HC and MV) to evaluate the final body of the study and determine its eligibility. The Critical Appraisal Tools of the Joana Briggs Institute (CAT-JBI) were used to assess the scientific quality of each article (level of evidence), which were accepted after receiving a score equal to or greater than 70% on the CAT-JBI. The level of evidence was classified according to the JBI [22].

The analysis of the methodological aspects of the various included articles was conducted according to the guidelines set forth by the Joanna Briggs Institute, utilizing a set of critical appraisal tools that cover different study designs, including quantitative, qualitative, and mixed methods. The scoring of the checklist was as follows: "Yes" received 1 point, while "No" and "Not clear" received 0 points. Each criterion of the instrument was rated based on the researcher's judgment as "yes" if the criterion was met, "no" if it was not met, and "not clear" or "not applicable" if it was ambiguous. The second and third reviewers were consulted in the event of inconsistencies, which were resolved by consensus. The total points were classified based on the presence of 70% of the items, considering the recommendations.

Thus, a score between 70–79% of the checklist criteria was classified as moderate quality, between 80–90% was assigned high quality, and a score exceeding 90% of the criteria was classified as excellent quality [23].

In the analysis of the data, a narrative synthesis was conducted considering Dorothea Orem's Theory, and the nursing interventions were categorized into the support-education system and the assist-training system.

3 Results

Initially, about 49,605 articles were found using the Boolean operation "self care" AND "self-efficacy" OR "self management". The search was repeated, this time using the Boolean operation "hospitalization" OR "hospitalized" OR "hospitalized patients" OR "inpatient," resulting in 492,521 articles. A search was conducted again with the terms "outcomes" OR "benefits" OR "effects," yielding a total of 11,864,627 articles. Finally, a last search was performed using all the previously mentioned Boolean operations: ""self care" AND "self-efficacy" OR "self management" AND "hospitalization" OR "hospitalized" OR "hospitalized patients" OR "inpatient" AND "outcomes" OR "benefits" OR "effects,"" which resulted in a total of 34 articles found through the EBSCOhost Research Databases in the MEDLINE and CINAHL Plus databases with the criterion of full text. In the end, 6 of these articles were duplicates, leaving a total of 28 articles. From these articles, the abstracts were read, with only 14 meeting the same inclusion criteria for the study. Of the remaining 14 articles, the full text was explored, resulting in only 8 articles being eligible for the study ($n = 8$). Figure 1 represents the process of selecting the articles according to PRISMA recommendations [19].

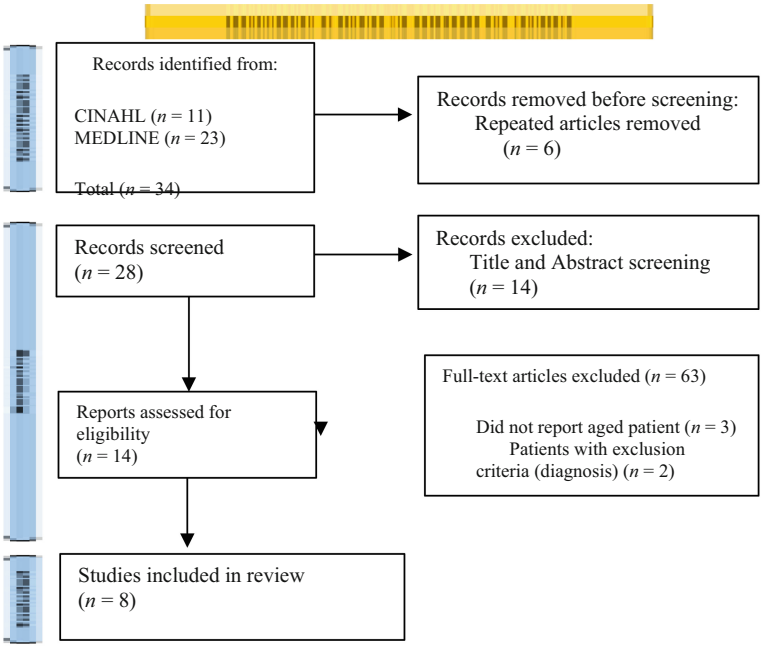

Fig. 1. Flow diagram of the literature search of this meta-analysis (according to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses – PRISMA)

4 Characteristics of the Studies and Participants

Table 1 summarizes the characteristics of the selected studies on "the benefits of rehabilitation nursing interventions in hospitalized elderly patients." The selected studies were conducted in three different countries: the United States of America (n = 5) [9, 24–27], the United Kingdom (n = 2) [28, 29], and the Netherlands (n = 1) [25]. All articles were published in English. Regarding the year of publication, 2020 and 2021 were the most prevalent, with a publication confirmed in one of the other remaining years.

Regarding the design of the selected studies, two articles are qualitative studies [28, 29], and two are retrospective cohort studies [9, 27], one is an observational study with a control group [24], and three are systematic reviews of the literature of comparable cohorts and other inferior study designs [25, 26, 30]. The methodological quality of the articles, according to the defined criteria mentioned earlier, all met more than 70% of the quality criteria. As shown in Table 2, most of the studies have an average methodological quality [24, 26–29] and three studies with excellent quality [9, 25, 30].

After the complete reading of the selected articles, relevant data for the raised question was extracted. Table 2 critically and qualitatively summarizes the articles.

Table 1. Characteristics of studies

Authors	Year/Country/Title	Classification JBI
Chovanec et, al. [24]	**Year**: 2021 **Country**: USA **Title**: Acute Care Management During a Pandemic	75%
Cogan et, al. [25]	**Year**: 2020 **Country**: USA **Title**: Association of Length of Stay, Recovery Rate, and Therapy Time per Day With Functional Outcomes After Hip Fracture Surgery	100%
Cogan et, al. [26]	**Year**: 2022 **Country**: USA **Title**: Association of Cognitive Impairment With Rate of Functional Gain Among Older Adults With Stroke	72,7%
Jepma et, al. [30]	**Year**: 2021 **Country**: Netherland **Title**: Experiences of frail older cardiac patients with a nurse-coordinated transitional care intervention - a qualitative study	100%
Li et, al. [9]	**Year**: 2020 **Country**: USA **Title**: Impact of Self-Care and Mobility on One or More Post-Acute Care Transitions	90,9%
Li et, al. [27]	**Year**: 2021 **Country**: USA **Title**: Functional Status Across Post-Acute Settings is Associated With 30-Day and 90-Day Hospital Readmissions	72,7%
Gibson et, al. [28]	**Year**: 2018 **Country**: UK **Title**: Stroke survivors' and carers' experiences of a systematic voiding programme to treat urinary incontinence after stroke	70%
Turner et, al. [29]	**Year**: 2019 **Country**: UK **Title**: The Perceptions and Rehabilitation Experience of Older People After Falling in the Hospital	70%

Table 2. Qualitative analysis of studies

Authors	Design, Study Objective and Level of Evidence JBI	Participants/Age	Intervention	Results/Conclusions
Chovanec et, al. [24]	Observational study without a control group **Level:** 3.e **Objective**: To review the experiences of a health system, exploring strategies to ensure effective communication between team members, the patient and the family in discharge planning, establishing and maintaining trust, providing support in the health-disease transition process	Patients hospitalized in intensive care during the Covid-19 pandemic	Transformation of the care management model to meet the needs of discharge planning for people admitted to a large hospital in a community setting. Communication with users at home, by telephone, to maintain follow-up and help with the transition process from hospital to home	Individualized care for a positive transition Support-Education: -Interviews Active listening to Therapeutic communication -Preparation for transition of care (discharge plans, family involvement) -Continuity of care (support-evaluation after discharge)
Cogan et, al. [25]	Systematic review of comparable cohorts and other inferior study designs **Level:** 3.b **Objective:** To understand the association between therapy time, length of stay and functional outcomes for patients after hip fracture surgery	150 participants with a hip fracture **Age:** $\geq$ 65	The study analyzed data from users of 4 inpatient rehabilitation centers and 7 skilled nursing facilities. The participants received inpatient rehabilitation services for hip fractures The Functional Independence Scale measured mobility and self-care ability at the time of discharge. Users were categorized into 9 recovery groups based on minutes of therapy and rate of functional gain per day	Gains in functional capacity Assisting and coaching: -Gain self-care and mobility Functionality: - Increases overtime -Increased physical abilities

(*continued*)

Table 2. (*continued*)

Authors	Design, Study Objective and Level of Evidence JBI	Participants/Age	Intervention	Results/Conclusions
Cogan et, al. [26]	Systematic review of comparable cohorts and other inferior study designs **Level:** 3.b **Objective:** This study explored the association between cognitive impairment on admission, self-care, and the rate of mobility gain during a stay in post-acute care [from admission to discharge] for elderly stroke patients	100 adults diagnosed with stroke, 67% of whom were women. Participants were classified as having severe (n = 16), moderate (n = 39) or mild (n = 45) cognitive impairment on admission **Age**: 79	The measure was to assess the extent to which cognitive impairment on admission explains the variation in the weekly rate of gain in self-care and mobility Additional variables were minutes of occupational therapy and physiotherapy per day, dependence on self-care and mobility at the time of admission, age and number of comorbidities	Mobility Gains Assisting and training: -Gains in self-care and mobility - ADL training Functionality -Increased physical abilities
Jepma et, al. [30]	Systematic review of comparable cohorts and other inferior study designs **Level:** 3.b **Objective:** intervention coordinated by nurses, combining case management, disease management and rehabilitation in a home setting, for elderly, hospitalized and frail users with heart disease	16 patients who participated in the Cardiac Care Bridge program **Age**: ≥ 70	Elderly patients with heart disease have a high risk of readmission and mortality. Transitional care interventions can help prevent adverse events, which is why the Cardiac Care Bridge program was created, combining disease management and rehabilitation in a home setting The experiences of users of this program were analyzed through interviews, to contribute to the design and application of future transitional care interventions for users with these characteristics	Individualized care for a positive transition Functionality: -Increased physical capabilities Disease management: -Symptom control -Anxiety control

(*continued*)

Table 2. (*continued*)

Authors	Design, Study Objective and Level of Evidence JBI	Participants/Age	Intervention	Results/Conclusions
Li at, al. [9]	Retrospective cross-sectional study **Level:** 2.d **Objective:** To investigate the association between functional status and transition between different rehabilitation environments in post-acute care	Medicare patients with stroke, lower extremity joint replacements and hip/femur fractures who were discharged to one of three PAC settings (inpatient rehabilitation facilities, skilled nursing facilities and home health agencies) between 2013 and 2014 (n = 540,526) **Age**: ≥ 66	Timely functional interventions can optimize recovery, improving users' health outcomes in the pre-acute, hospitalization and discharge phases, whether they are more/less dependent, if safety is guaranteed	Gains in Self-Care Assist and train: -Gains in self-care and mobility Functionality: -Continuity of care
Li et, al. [27]	Retrospective cross-sectional study **Level:** 2.d **Objective:** To describe functional scores (mobility and self-care) in post-acute settings and to examine the association of functional status in post-acute settings with the probability of risk of hospital readmission after 30 and 90 days in patients with stroke, #femoral neck and knee arthroplasty	Medicare beneficiaries Readmission at 30 and 90 days (n = 781021) **Age**: ≥ 66	Timely functional interventions can optimize recovery, improving users' health outcomes in the pre-acute, hospitalization and discharge phases, whether they are more/less dependent, if safety is guaranteed	Gains in Functionality Watch-Train: -ADL training
Gibson et, al. [28]	Qualitative study **Level**: 4.b **Objective**: To explore the opinions and experiences of stroke survivors and caregivers about a systematic urination program for post-stroke incontinence	16 participants [12 stroke survivors, 4 caregivers] **Age:** 76	Interviews before discharge from one of the six stroke inpatient units in six hospitals	Reducing urinary incontinence Assist and train: -Control of urinary incontinence
Turner et, al. [29]	Qualitative study **Level:** 4.b **Objective:** To explore the experiences of elderly patients who have fallen during hospitalization	Patients from two rehabilitation wards who fell (n = 5) **Age**: 81.2	Interviews after falls, consisting of 7 initial questions and 13 additional ones. If the user fell again, they would be interviewed again, but only with the 13 additional questions	Reducing the number of falls Understanding the cause of falls Communication: -Interviews -Active listening -Therapeutic communication Assisting and coaching: -Motor rehabilitation [Mobility training-walking aids Disease management: -Patient-centered responses

In the support-education category, therapeutic communication techniques and strategies were considered [24, 29] and discharge planning with the involvement of patients and their families [24].

In the assist-train category, motor rehabilitation care was identified, through mobility training using walking aids [29].

In the analyzed studies, the benefits of rehabilitation nursing care for patients over 65 years old are functional recovery and empowerment in disease management. Individualized and specialized care has shown benefits for both the patients and their family members and caregivers [24], namely gains in self-care and mobility [26, 27, 29], a reduction in the number of falls [29] and symptom management [30].

5 Discussion

Most of the studies were conducted in the United States of America; however, there are studies related to the European population, which demonstrates the universality of rehabilitation care. All the studies address interventions for elderly patients, and some focus on their caregivers.

The specialist nurse in rehabilitation nursing is the professional with scientific, technical, and human competencies to provide care at the neurological, respiratory, cardiac, orthopedic levels, and in other situations of disability, aiming to empower the elderly to maximize their functional capacity so that they can perform their self-care without the assistance of other [31, 32].

Rehabilitation nurses should provide patients with means to express their concerns about self-managing angina symptoms and their ability to differentiate between chest pain related to the disease and pain associated with physical exertion [33]. Rehabilitation nurses must also be capable of providing their patients with information that enables them to manage the energy associated with everyday tasks. In other words, rehabilitation nurses play an important role in clarifying doubts and are sources of information and capacity promoters for their patients, helping them to perform daily tasks after hospitalization. This support can take place not only in person but also by telephone, as patients report feeling accompanied by the rehabilitation nurse through follow-up calls [30].

The study by Chovanec et al. addresses the issue of discharge planning during the Covid-19 pandemic, where there was a need to maintain follow-up for patients coming from the hospital, at home, to facilitate the hospital discharge process [24]. The implementation of this telephone follow-up intervention aimed to promote health and self-care, establishing a relationship between healthcare providers and patients and caregivers after discharge. It emphasized that the virtual environment can also address the questions and needs of patients, reinforcing that follow-up does not end when the patient leaves the hospital environment, thus facilitating the transition process and avoiding unfavorable outcomes. Respiratory rehabilitation after COVID-19 infection is extremely important not only in the context of hospitalization but also after clinical discharge, allowing for an improvement in the degree of dyspnea and functionality of these patients. It is necessary that they are also followed up at home to reinforce the teachings and skills that enable the patient to manage their disease situation [30, 34]. According to Cogan et al., the recovery rate and length of hospitalization are associated with functional ability at the

time of clinical discharge, something that was assessed using the Functional Independence Measure [FIM] [25]. A shorter time spent in rehabilitation care may mean an increased burden for caregivers upon discharge; that is, the longer the time spent undergoing rehabilitation, the greater the gains in functionality and the lesser the dependence on performing self-care activities [25].

Reducing functional dependency is a process that can be slow, involves costs, and has an impact on the lives of patients and their families [16, 35]. Programs and policies aimed at addressing the needs of informal caregivers are of utmost importance, as they equip and empower them with the skills necessary to provide quality care, improving the health status of the service user without jeopardizing their own health [36].

Cogan et al. evaluate in their study how cognitive impairment at the time of admission influences weekly gains in functional capacity and self-care [26]. They concluded, using the MIF, that patients who exhibit greater deficits benefit from more intensive rehabilitation therapy, leading to more noticeable improvements in their ability to perform self-care activities.

According to Jepma et al., patients with heart disease have a higher risk of readmission, so rehabilitation nursing care aims to contribute to the prevention of adverse outcomes through a comprehensive assessment [which considers the frailty of the elderly and their capabilities] and continuity of care involving home visits [carried out by nurses specializing in rehabilitation in a community context [30]. This program aims to provide support during the post-discharge period, with a continuity of rehabilitation care. With the advancement of technology, the use of telemedicine tools can be beneficial for maintaining the health of patients, such as m-health tools, which have shown improvement in the maintenance of self-care among patients with heart disease [37–39].

The study by Li et al. addresses the probability of hospital readmission at 30 and 90 days post-discharge. This study shows us that the more functionally dependent a patient [with stroke, arthroplasty, and hip fracture] is at the time of hospital discharge, the higher the likelihood of being readmitted to the hospital. This highlights the importance of early rehabilitation intervention to enhance functionality and reduce the number of hospital readmissions [9].

Gibson et al. already studied urinary incontinence in stroke survivors and concluded that it is extremely important to include patients in a systematic urination program, so that they can become aware of their limitations and thus combat them, since urinary incontinence causes psychological problems, depression, and often puts a strain on the caregiver. The patients who participated in this program recognized its importance and the potential to overcome the inevitable barriers to health management that they experience [28].

The study by Li et al. reflects the transitions of patients between rehabilitation health units. In this study, all patients who were discharged from the hospital to their homes were excluded. The study concludes that patients with higher functional dependence at admission tend to go through more than one rehabilitation unit. In summary, the earlier patients gain functionality, the fewer readmissions they will have [27].

Finally, Turner et al. presents a study on falls experienced by hospitalized patients and concludes on the importance of classifying patients regarding their fall risk and preventing such incidents. Patients report that after the fall, they felt discouraged from

mobilizing, as they were advised to do so in the presence of a healthcare professional. Close monitoring and the availability of walking aides were interventions used, as the main reason for the falls reported by patients was loss of balance [29].

The conclusions of Cogan et al. relate to the time users spend in rehabilitation units, concluding that the longer one spends in these types of units, the greater the gains in functionality, resulting in less dependence on self-care tasks [25]. A similar conclusion was reached in the study by Rodrigues et al. with ten elderly patients admitted to a care unit dedicated to rehabilitation [16]. Some articles refer to the fact that functionality increases with the intensity of rehabilitation interventions; the more time spent in a rehabilitation unit, that is, the more intense the rehabilitation intervention, the better the results will be in terms of functionality [25]. The intensity of interventions should be personalized, considering age, pathology, and gender [25, 26, 30], The study by Turner et al. highlights the importance of early intervention, as patients who present with more pronounced levels of dependence regarding self-care and mobility are more likely to require readmission to the hospital [29]. This study refers to transitions between rehabilitation units, that is, to continuity of care. Patients who were more dependent during their first admission to rehabilitation units are likely to have more transitions between units because they have greater difficulty achieving independence and a safe return home. The article by Jepma et al. (2021) also emphasizes the continuity of care through the provision of support during the post-discharge period [30].

A rehabilitation nursing program should also include training and capacity-building proposals, to provide tools that enable patients to manage their illness, allowing them to be active participants in their own rehabilitation and prevention of complications [34]. Anxiety control is also part of the benefits of rehabilitation care, particularly in disease management, as it helps patients take control of their symptoms by equipping them with knowledge and strategies that assist in anxiety management [34] among patients with angina [30], those with cardiac issues, and patients with post-stroke urinary incontinence [28]. The study by Fialho et al., conducted with 12 patients in rehabilitation nursing care, concluded that there was an improvement in perception regarding comfort, specifically in terms of relief, physical comfort, socio-cultural aspects, and tranquility [40]. Furthermore, regarding this last article, it is important to emphasize the significance of patient-centered responses in disease management. Specifically, the patients reported in the study by Gibson et al. are stroke survivors with pelvic muscle sequelae, resulting in urinary incontinence [28]. This study reports that about 50% of stroke survivors experience urinary incontinence, which consequently leads to psychological problems, depression, and an increased burden on the primary caregiver. This study focuses on individualized patient-centered intervention plans, and its main outcomes were the recognition by patients of their importance and their potential to break down barriers. Aligning with individualized care, the study by Cogan et al. highlights the importance of appropriate assessment, contributing to the personalization of care and consequently improving its quality [26]. Finally, the study by Li et al. addresses the risk of hospital readmission, concluding that rehabilitation care should be introduced as early as possible, as the more functionally dependent patients were at the time of discharge, the greater the likelihood of readmission within 30 or 90 days [27].

6 Conclusion

The use of educational support strategies, as well as the partially compensatory system described in Dorothea Orem's Theory, allows for meeting the needs of elderly patients who are hospitalized. Rehabilitation nursing interventions during the hospitalization process are based on communication, teaching disease and symptom management strategies, discharge planning with patients and caregivers, activities of daily living (ADL) training, and techniques for motor rehabilitation.

The benefits stemming from specialized intervention led to improvements in functional recovery, as well as empowering elderly patients and caregivers in disease management. In fact, the intervention by the rehabilitation nurse specialist reduces the effects of hospitalization on elderly patients, shortening the length of stay and mitigating the need for future hospitalizations.

Limitations. The study has limitations, including the exclusion of studies published in other languages that could provide relevant data on the topic, as well as the heterogeneity of the studies analyzed. This limitation reinforces the need for controlled studies that allow for the evaluation of the effectiveness of rehabilitation care during the hospitalization of elderly patients, including the structured planning of clinical discharge. A second limitation is related to the period used for the selection of studies with publications from 2019 to 2024, as a strategy to access the most up-to-date information on the subject. Some relevant articles published before 2019 may have been excluded; however, previous studies indicate that the conclusions of most reviews are valid for approximately five years, and that it is possible to consider evidence from the last five to ten years for the analysis of more current knowledge [41, 42].

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